3 STARTING THE PLAN

The Oak Hill plan started with 52 stakeholders attending a pre-planning meeting on September 27, 2005. The assembled residents and business and property owners discussed the combined planning area. At that time, the proposed area did not include Granada Hills, Travis Country, Regents Hill, Covenant Estates, Alexan Mountain View, Legend Oaks, and Western Oaks subdivisions. Participants requested that City Council expand the planning area's boundaries to include these subdivisions.

On October 20, the planning effort was officially launched when City Council approved Resolution No. 20051020-012, directing the Planning Commission to expand West Oak Hill and East Oak Hill as requested. In its final form, the planning area is approximately 11,000 acres. Figure 3-1 shows the planning area's original and final boundaries.

On November 19, approximately 100 stakeholders attended a Strengths, Opportunities, and Challenges meeting, where they broke into five groups to dis-

Figure 3-1: Original and final boundary

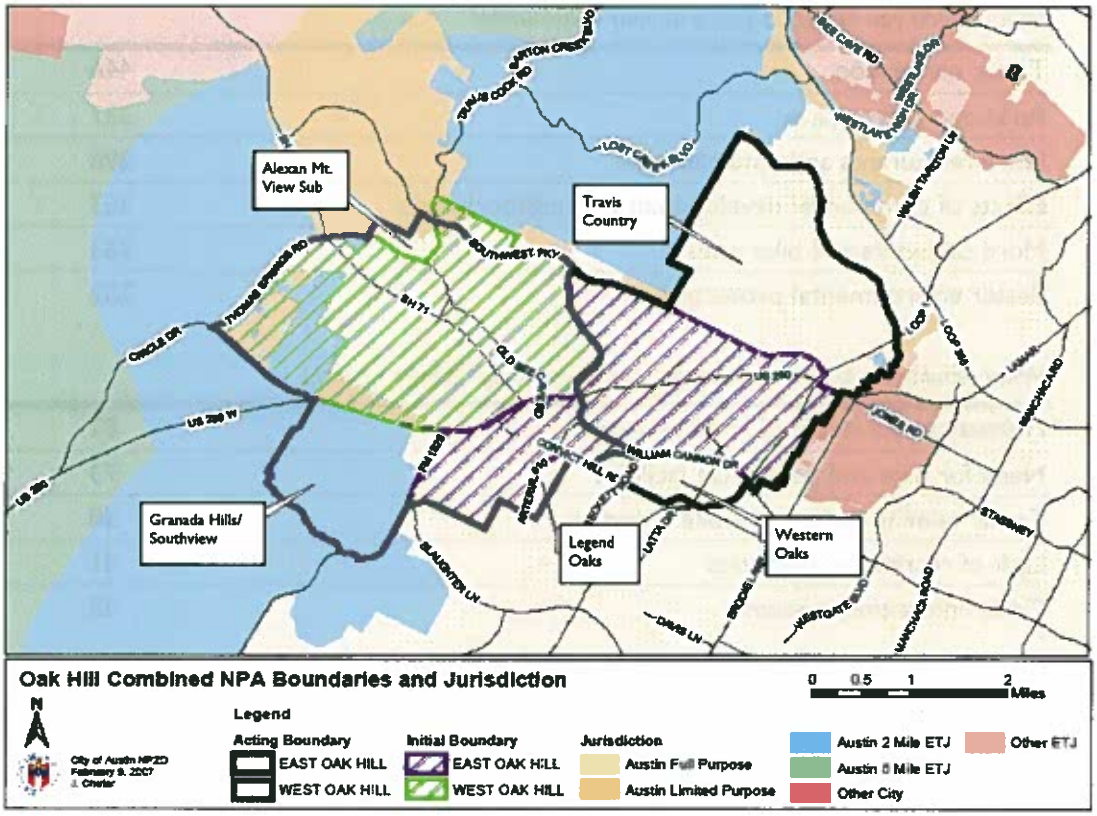


Figure 3-3: Top five responses to selected Resident Survey questions

What do you like about your community?	*Responses*	*Percentage*
Location	552	89.0%
Appearance and character	380	61.3%
Parks, creeks, and green space	362	58.4%
Nearby shopping and supermarkets	306	49.4%
Travel time to jobs	302	48.7%

What do you like about your community? (Open ended.)		
Country feel, open space, low density, nature	136	22.0%
Neighborhood characteristics (diversity of population, young families, neighborhood camaraderie)	66	10.6%
Large lots	55	8.9%
Safe environment/low crime rate	35	5.7%
Outside city limits	30	4.9%

What would you like to improve in your community?		
Traffic congestion	446	72.0%
Parks and green space	337	54.4%
More restaurants and entertainment	298	48.1%
Effects of commercial development on neighborhoods	263	42.4%
More sidewalks and bike lanes	263	42.4%
Better environmental protection	232	37.4%

What would you like to improve in your community? (Open ended.)		
Highway/street design & maintenance	82	13.2%
Need for bike and pedestrian facilities	73	11.7%
Traffic calming and automobile speeding	50	8.1%
Lack of recreational facilities	41	6.6%
Code enforcement issues	38	6.1%

cuss what they felt were the strengths of Oak Hill, what should be preserved, what challenges should be addressed, and what opportunities to enhance the neighborhood existed.

The five strengths mentioned most often related to (1) the environment (creeks and greenbelts), (2) the community (diversity of people), (3) the character of the neighborhood, (4) commercial businesses, and (5) area schools.

The five challenges most often mentioned related to (1) transportation issues, such as U.S. Highway 290 and interconnecting streets; (2) the lack of bike and pedestrian facilities; (3) the need to redevelop the "Y" with more commercial services; (4) balancing environmental protection with commercial development; and (5) the need for more governmental services.

The five opportunities mentioned most often related to (1) transportation opportunities (if specific roads were expanded or improved); (2) adding bike and pedestrian facilities; (3) the need for more commercial services; and (4) development and the need for more public transportation (these two issues were mentioned equally).

Figure 3-2: Commercial signs on U.S. Highway 290

In early November 2005, the neighborhood planning survey was posted to the Oak Hill website, and paper surveys were mailed to stakeholders who requested them. Approximately 620 people submitted surveys (there are 6,296 households in the planning area). The survey asked what Oak Hill stakeholders wanted to preserve and improve. It also gathered information on where sidewalks should be built and what areas experienced flooding. Results of selected survey questions are given in Figures 3-3 and 3-4.

Figure 3-4: Top five responses to selected Non-Resident Survey questions

What issues affect your business or property and are of concern to you?	*Responses*	*Percentage*
Traffic congestion	40	70.2%
Restricted vehicular access	18	31.6%
Other (see below)	16	28.1%
Lack of complementary businesses in the area	13	22.8%
Lack of maintenance of neighboring properties	12	21.1%

Other issues that affect your business or property. (Open-ended.)		
Environmental controls prohibiting property development	4	20.0%
Highway/street design and maintenance	2	10.0%
More parks/open space	2	10.0%
No public transportation	2	10.0%
Need pedestrian facilities	2	10.0%

Figure 3-5: Meeting and process timeline

	Date	*Attendees*	*Meeting*
2005	August	***	Pre-planning
	September 27	52	Pre-planning stakeholder meeting
	October	***	Boundary adjustment (City Council)
	November 19	~100 *	Strengths, opportunities, challenges
	November & December	***	Initial Survey conducted (620 responses)
2006	January	***	Steering committee formed
	January 18	102	Vision and goals (I)
	February 23	55	Vision and goals (II)
	March 23	36	Watershed protection and water quality ordinances
	April 29	57	Land use work session
	June 20	74	Southeast land use and zoning
	July 13	43	Northeast land use and zoning
	August 10	73	Western land use and zoning (I)
	September 30	63	Western land use and zoning (II)
	November 14	45	Parks, open space, environment, and Oak Hill history
	December 9	37	Transportation forum
2007	January	***	Expansion of steering committee
	January 25	52	Transportation and Town Center/TOD land use and zoning
	February 24	28	Affordable housing and design guidelines
	April 12	43	East Oak Hill preliminary land use and zoning
	April 26	61	West Oak Hill preliminary land use and zoning
	June 23	148	Draft plan presentation
	August 30	17	Vertical mixed use, front yard parking restrictions, and mobile food vendors
2008	March 31	46	Land Use and Zoning information meeting
	April 29	44	Future Land Use Map meeting
	May 14	83	Final Open House
	May-June	***	Final Survey conducted (164 responses)

* Attendance at the November 19th is an estimate.

OUTREACH

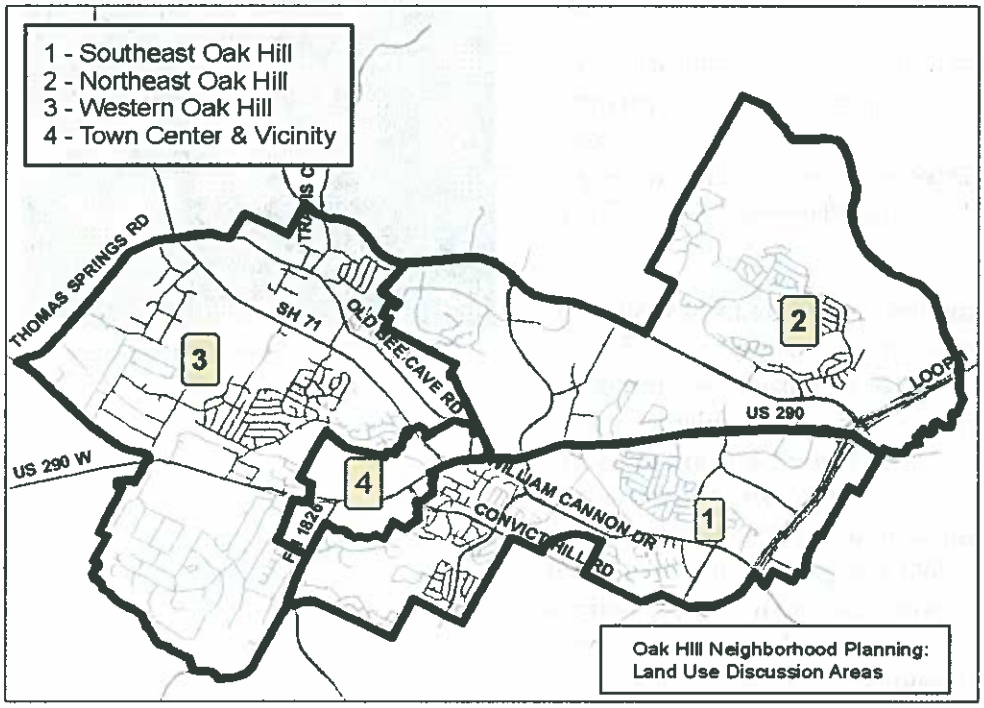
Notification of the first neighborhood planning meeting was sent to all property owners and City of Austin utility account holders in the planning area (about 21,000 people). People who signed in at each meeting were put on an interest list to receive subsequent meeting notifications either by e-mail or through the U.S. Postal Service. On the planning area's website, stakeholders were able to get information on the process and add their name and contact information to the interest list. By the end of the process, approximately 1,100 people were on this list.

Figure 3-6: Oak Hill stakeholders on September 30, 2006

Members of the Oak Hill Association of Neighborhoods (OHAN), Oak Hill Business and Professional Association (OHBPA), and the Oak Hill Gazette were also on the list. These organizations provided invaluable outreach for the planning process.

Staff compiled the main themes from the survey and the strengths, challenges and opportunities meeting, and presented them to stakeholders at two Vision and Goals meetings held in January and February 2006. At these two meetings, participants expanded on these themes to create the Oak Hill vision and goals. These are listed at the beginning of the plan and are also

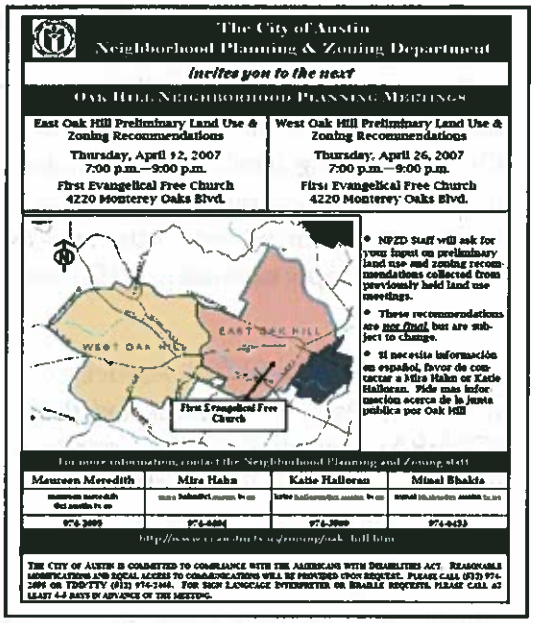
Figure 3-7: Land Use Discussion Areas



listed and addressed more fully in each chapter. They were also used by staff to schedule the rest of the meetings (Figure 3-5), covering watershed and water quality issues, parks and open space, transportation, and other issues.

The core of the plan, and the planning process, is setting future land uses and zoning. In order to make these meetings manageable, Oak Hill was divided into four areas (Figure 3-7). Area 1 (Southeast), Area 2 (Northeast), and Area 4 (Town Center) each had one land use and zoning meeting. Area 3 (Western Oak Hill) had two meetings due to a large attendance at the first meeting. The second Area 3 meeting was conducted to ensure all participants were accommodated.

Figure 3-8: Example of a Community Meeting Flyer


The City of Austin
Neighborhood Planning & Zoning Department
invites you to the next
OAK HILL NEIGHBORHOOD PLANNING MEETINGS
East Oak Hill Preliminary Land Use & Zoning Recommendations
Thursday, April 12, 2007
7:00 p.m.—9:00 p.m.
First Evangelical Free Church
4220 Monterey Oaks Blvd.
West Oak Hill Preliminary Land Use & Zoning Recommendations
Thursday, April 26, 2007
7:00 p.m.—9:00 p.m.
First Evangelical Free Church
4220 Monterey Oaks Blvd.
WEST OAK HILL
EAST OAK HILL
First Evangelical Free Church
• NPZD Staff will ask for your input on preliminary land use and zoning recommendations collected from previously held land use meetings.
• These recommendations are not final, but are subject to change.
• Si necesita información en español, favor de contactar a Mira Hahn or Katie Halloran. Pida mas información acerca de la Junta publica por Oak Hill
For more information, contact the Neighborhood Planning and Zoning staff:
Maureen Meredith | Mira Hahn | Katie Halloran | Minal Bhakta
974-2899 | 974-6494 | 974-2880 | 974-6433
http://www.ci.austin.tx.us/zoning/oak_hill.htm
THE CITY OF AUSTIN IS COMMITTED TO COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT. REASONABLE MODIFICATIONS AND EQUAL ACCESS TO COMMUNICATIONS WILL BE PROVIDED UPON REQUEST. PLEASE CALL (512) 974-2899 OR TDD/TTY (512) 974-2445. FOR SIGN LANGUAGE INTERPRETER OR DISABLE REQUESTS, PLEASE CALL AT LEAST 4-8 DAYS IN ADVANCE OF THE MEETING.

STEERING COMMITTEE AND PLANNING CONTACT TEAM

In January 2006, staff sent notification to the interest list seeking volunteers to serve on the Oak Hill Steering Committee. Thirty nine people volunteered. The steering committee provided guidance on the content, structure, and outreach for stakeholder meetings. They also helped refine input received from larger meetings on the vision, goals, and recommendations.

In January 2007, staff sent a second notification to the interest list seeking additional members to join the steering committee. Thirty more people volunteered. The steering committee is currently transitioning into the Oak Hill Neighborhood Planning Contact Team (OHNPCT).

Figure 3-9: Stakeholders on April 26, 2007

A neighborhood planning contact team upholds the vision and goals of their neighborhood plan. The contact team is the steward of the plan's recommendations and works with implementation planners to ensure they are acted upon. Developers and property owners are encouraged to work with the contact team so that new construction enhances the neighborhood and fulfills the goals of the plan. Those needing plan amendments can, with contact team support, submit one at any time, rather than wait for the once-a-year open amendment period. Prior to the

completion of the plan, OHNPCT members may be asked to provide input into proposed zoning and land use recommendations in preparation for community meetings.

COORDINATION WITH CITY DEPARTMENTS AND OUTSIDE AGENCIES

Implementation of many of the plan recommendations fall under the purview of other City of Austin departments (such as Parks and Recreation, Public Works, etc.) and outside agencies (such as Capital Metro and TxDOT). Representatives of outside departments and agencies attended relevant Oak Hill planning meetings to talk directly with stakeholders. These representatives also met with NPZD staff to review draft recommendations to ensure they could be included in each department's work program. The recommendations in this plan reflect their input, as well as that of the stakeholders and NPZD staff.

NPZD staff worked very closely with the Watershed Protection and Development Review Department in making land use and zoning recommendations over the Edwards Aquifer recharge and contributing zones.

Figure 3-10: Small group discussion during a transportation workshop.

Figure 3-11: Capital Metro staff discussing U.S. Highway 290 at an Oak Hill transportation workshop.

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4

Barton Springs and the Edwards Aquifer, along with the Colorado River and its network of creeks and lakes, are crucial to Oak Hill and all of Austin. In addition to the water the city draws from the river, these water features provide habitat for diverse native species and recreation and relief for residents. A core value of Oak Hill stakeholders is that these resources must be protected and restored. Concerns about Barton Springs, the Edwards and Trinity Aquifers, and the rest of the rich hydrological tapestry in Oak Hill appear throughout this plan, but are primarily collected in this chapter, alongside the history of how these values have taken form in development regulations, institutions, and organizations that are still active today.

HOW DEVELOPMENT AFFECTS WATER QUALITY

Oak Hill is located in the Barton Springs segment of the Edwards Aquifer. Eastern Oak Hill is located above the Edwards Group, a formation of fractured limestone, which is soluble. Landscapes of this type of dissolved rock are commonly known as karst regions and are generally associated with aquifers that can yield large quantities of water.

When rain falls on large undeveloped areas, most of it is absorbed by the soil and vegetation, while typically less then 5% runs off the land. Water that is absorbed into the ground is filtered by plant matter and soil to some degree as it travels into the earth. This is the process by which surface water becomes groundwater (or recharges the aquifer) and contributes to baseflow of creeks. Baseflow in creeks and rivers and adequate recharge of groundwater supports aquatic life, provides recreational opportunities for humans, and provides municipalities with drinking water.

Figure 4-1: Williamson Creek in Oak Hill

In developed areas that have a large amount of impervious cover (i.e. roadway, building, and parking lot surfaces that prevent water from being absorbed by the soil), rain is not absorbed by the ground. Instead, it becomes runoff and carries contaminants with it as it travels. In developed watersheds, much of the precipitation becomes runoff. For example, an 80% impervious site will convert about 76% of rainfall into runoff (Environmental Criteria Manual, Table 1-9 Runoff Coefficient Table)."

(continued on page 36)

GOALS, OBJECTIVES, AND RECOMMENDATIONS

4.A. Preserve and enhance environmental resources including watersheds, air quality, and wildlife corridors.

4.A.1

Preserve the water quality of area aquifers, streams, rivers, and springs and protect endangered species dependent on the quality of those water resources.

4.A.1a—Consider implementation of policies recommended in the Regional Water Quality Protection Plan for the Barton Springs Segment of the Edwards Aquifer and Its Contributing Zone. Regional land development regulations designed to protect sensitive recharge and contributing zone areas of the Edwards Aquifer would help achieve regional and local water quality goals. Note: Some property owners represented on the Oak Hill Contact Team believe land use regulations should be applied on a regional level; if a certain land use is restricted in Oak Hill's recharge zone, they feel that land use should be restricted in other recharge areas as well.

4.A.1b—Where appropriate, maintain rural density in Oak Hill. To help achieve regional water quality goals, manage the urbanization of Oak Hill by minimizing dense development and guiding new development away from the recharge zone.

4.A.1c—Utilize bonds and other City funds to actively acquire environmentally sensitive land in Oak Hill for preservation as wildlife areas, trails, or parkland.

4.A.1d—Integrate Stormwater Treatment Program water quality controls for all new development and redevelopment projects in Oak Hill. Ensure regional water quality controls (wet ponds) are carefully maintained. For more information on this City program, see http://www.ci.austin.tx.us/watershed/stormwater_treatment.htm.

4.A.1e—Prevent polluted runoff from commercial property and residential areas in Oak Hill by increasing public education; increase funding for City of Austin WPDR educational programs. Find information about these programs at http://www.cityofaustin.org/watershed/education.htm.

4.A.1f—Regional transportation authorities should create a regional hazardous materials roadway plan to minimize risk of spills and extensive contamination of groundwater.

4.A.1g—The City should encourage more frequent inspections of facilities monitored by City of Austin Stormwater Discharge Permit Program staff over the recharge and contributing zones. For more information about this program, see http://www.cityofaustin.org/watershed/stormwater_permit.htm.

4.A.1h—City staff should conduct and publish research on the environmental impact of creating a densely developed transit center in Oak Hill. Some stakeholders are concerned that too much development in Oak Hill will draw additional visitors to the environmentally sensitive area, which will result in additional car trips and resulting automobile related pollution.

4.A.1i—City staff should conduct and publish research on the environmental impact of City of Austin regulations on regional development patterns. Some stakeholders are concerned that development will "leap" beyond Austin into environmentally sensitive areas with little regulation outside of the Austin City limits ultimately having a negative impact on water quality.

4.B. Provide opportunities for high-quality new development and redevelopment.

4.B.1
Minimize the ecological footprint of development in the Oak Hill planning area to help achieve environmental goals, particularly the preservation of water quality.

4.B.1a—During the development process, city staff should consider offering incentives for developers to comply with current land use regulations for "grandfathered" projects.

4.B.1b—City staff should retrofit existing dysfunctional water quality controls as redevelopment occurs in Oak Hill.

4.B.1c—City staff should consider conducting and publishing research on the merits of conservation development laws.

4.B.1d—Support trail connectivity in Oak Hill to achieve wildlife preservation goals and water quality goals. Trails can preserve open space and reduce car trips by providing alternate methods for travel within Oak Hill.

Runoff is collected by both natural and manmade watercourses and is carried through Oak Hill until it reaches the Colorado River or is able to infiltrate into the ground and recharge the aquifers. Natural watercourses include creeks and rivers. Manmade systems include storm drains and sewers and creek channels that have been straightened, lined, channelized, or otherwise altered.

Karst features below streambeds in the recharge zone contribute much of the groundwater to the Edwards Aquifer. These streams bring water from the contributing zone to the recharge zone (see Figure 4.2 for more detail on recharge and contributing zones). The rest of the aquifer's recharge comes from direct entry over the recharge zone itself in uplands soils and recharge features.

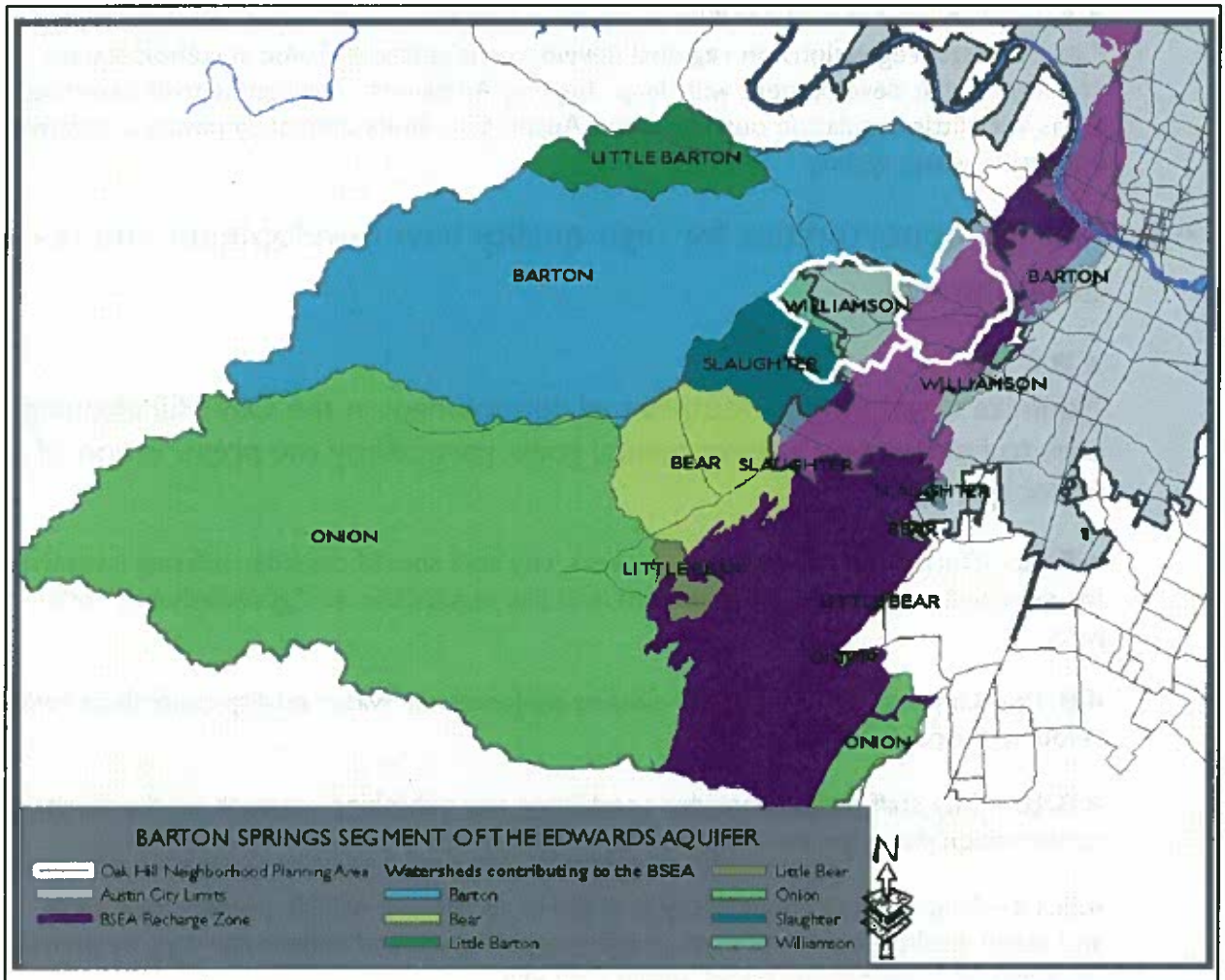

Figure 4-2: Recharge and contributing zones

The Barton Springs/Edwards Aquifer (BSEA) recharge zone is the area of land that recharges the Edwards Aquifer. The contributing zone is made up of the watersheds that drain into or across the recharge zone. Both are further defined by the City's Land Development Code for regulatory purposes. The recharge zone, and the watersheds that contribute to it, are shown above.

Karst features (such as caves, sinkholes, springs, wetlands, and faults or fractures in underground rock) are pathways that have dissolved in limestone and dolomite rock over long periods of time. They closely connect surface water to groundwater in the aquifer, which means there is less time and distance available to filter pollutants. Most groundwater in the Barton Springs segment of the Edwards Aquifer flows through karst features and is effectively unfiltered. Therefore, Austin's Land Development Code considers karst formations to be Critical Environmental Features (CEFs) and protects them from water pollution.

WATER QUALITY REGULATIONS

Water quality regulations span all levels of government, from federal law to local ordinance. Regulations relevant to this plan are reviewed here.

FEDERAL REGULATIONS

The Federal Clean Water Act (1977, previously the Federal Water Pollution Control Act (1972)) established water quality standards, provided a framework for regulating surface water pollutants, and allowed the Environmental Protection Agency (EPA) to implement federal pollution control programs. Early on, the EPA focused on point source pollution, such as sewage plants and industrial facilities. In the late 1980s, the EPA broadened its focus to include polluted runoff (storm drain systems and construction sites). For information on EPA's Smart Growth Practices, see http://www.epa.gov/smartgrowth/pdf/sg_stormwater_BMP.pdf.

In 1990, the EPA developed the National Pollutant Discharge Elimination System (NPDES) to regulate stormwater discharge, or non-point source pollution. Through NPDES, the EPA seeks to improve the nation's water quality by reducing the harmful effects of stormwater discharges from industrial facilities, municipal sewer systems, and construction sites. Municipalities with a population greater than 100,000 people are required to reduce and prevent non-point source pollution. A city's Storm Water Management Program must include oversight of specific industrial and high-risk operations (such as concrete batch plants, chemical manufacturing and storage, and bulk petroleum storage and dispensing), spill prevention and response, wet and dry weather monitoring, public education, construction site runoff control, and illicit discharge mitigation. Current regulations work on the basis of entire watersheds.

The Endangered Species Act, passed in 1973, requires the United States to conserve endangered species. Specifically, "Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (Section 2, Findings Purpose and Policy, The Endangered Species Act of 1973, U.S. Fish and Wildlife Service, http://www.fws.gov/laws/lawsdigest/esact.html).

The U.S. Fish and Wildlife Service (USFWS) listed the Barton Springs Salamander as endangered in 1997. The USFWS Draft Barton Springs Salamander Recovery Plan explains that the salamander was listed as endangered because of "degradation of the quality and quantity of water that feeds Barton Springs, as a result of urban expansion over the watershed." (*Barton Springs Salamander Recovery Plan,* September 2005, Southwest Region U.S. Fish and Wildlife

Service, p. v). The plan lists several recovery criteria to guide actions, including maintaining water levels and quality in the Barton Springs watershed, avoiding and remediating hazardous material spills, and removing local threats to surface waters in the Barton Springs ecosystem.

STATE REGULATIONS

State of Texas regulations administer and extend federal regulations. Chapter 26 of the Texas Water Code requires the state to establish plans and regulations to control water quality. Chapter 213 of the Texas Administrative Code authorizes the Texas Commission on Environmental Quality (TCEQ) to administer the Edwards Aquifer Protection Program. The program regulates hazardous substances (including those stored above and below ground), sewage collection systems, and stormwater runoff from construction sites. The Texas Pollutant Discharge Elimination System, administered by the TCEQ, regulates the discharge of wastewater by wastewater treatment facilities and stormdrain systems in large cities.

CITY OF AUSTIN DEVELOPMENT REGULATIONS

The City's Land Development Code (LDC) governs zoning, subdivision, and site development standards. Land use is primarily addressed in Chapter 6. Impervious cover limits, one of the major tools for stormwater management, are discussed here, along with other City water quality regulations.

Land Development Code

The LDC controls impervious cover limitations across the entire city through base zoning categories. It also establishes the following Watershed Regulation Areas: the Barton Springs Zone Watershed, Water Supply Rural Watersheds, Water Supply Suburban Watersheds, Suburban Watersheds, and Urban Watersheds. The Barton Springs Zone is all of the watersheds that "contribute recharge to Barton Springs, including those portions of the Barton, Williamson, Slaughter, Onion, Bear and Little Bear Creek watershed located in the Edwards Aquifer recharge or contributing zones" (LDC 25-8-2). (Figure 4-2 shows the Watershed Regulation Areas around the planning area.)

Oak Hill is in the Barton Springs Zone watershed, which has strict impervious cover limits: Edwards Aquifer Recharge Zone: 15%; Contributing Zone within Barton Creek Watershed: 20%; remainder of the Contributing Zone: 25%. Property owners are required to supply licensed engineers' reports with all site plan applications. These engineers' reports are used by City reviewers to determine the "Net Site Area" (NSA) of all tracts.

A property owner's NSA is used to determine how much impervious cover is allowed for that site. NSA is calculated by taking total gross site area (the square footage of the entire property) and subtracting areas with significant slope, areas used for wastewater irrigation, CEF setbacks (see next page), and creek buffers. The presence of these features affects the placement and amount of development allowed on a piece of property. Impervious cover calculations for sites also include "perimeter roadway deductions." Depending on the width of a property owner's right of way, the owner may be required to compensate for the impervious cover created by roadways adjacent to their property.

A caveat to these regulations are any properties that have been "grandfathered" under Chapter 245 of the Texas Local Government Code. This law releases property owners and developers from current watershed regulations, including impervious cover limitations. This law is discussed in more detail below.

Critical Environmental Features—CEFs (25-8-281)

By City code, CEFs are "of critical importance to the protection of environmental resources, and include bluffs, canyon rimrocks, caves, sinkholes, springs, and wetlands." This includes karst features. CEFs are protected by buffer zone setbacks. The Code states that drainage patterns for proposed development must be designed to protect CEFs from the effects of runoff from developed areas, and to maintain the catchment areas of recharge features in a natural state.

Critical Water Quality Zones and Water Quality Transition Zones (25-8-91; 25-2-92 and -93)

These zones are areas along creeks that are protected from most development. In all watersheds, creeks and their tributaries are classified by the size of their drainage area (the amount of land draining into them). These waterway classifications—Minor, Intermediate, and Major—are used to determine how much land along a creek will be protected from development (Figure 4-3). Generally, waterways with larger drainage areas have wider creek buffers. The critical water quality zone (CWQZ) is roughly based on floodplain boundaries, though both minimum and maximum buffer widths are established. Water quality transition zones (WQTZ) are located just outside of CWQZs and vary in width.

In the Barton Springs Zone, almost no development is allowed in CWQZs or WQTZs, and

Figure 4-3: Creek buffer widths in the Barton Springs zone

Critical Water Quality Zone	*Width of Buffer*
Minor	50-100 feet
Intermediate	100-200 feet
Major	200-400 feet
Barton Creek proper	400 feet

Water Quality Transition Zone	*Width of Buffer*
Minor	100 feet
Intermediate	200 feet
Major	300 feet

street crossings are limited. Wastewater lines are prohibited in these zones, and decentralized wastewater system requirements are specific. However, a significant amount of development occurred in Oak Hill prior to the adoption of these regulations, and many roadways and structures are located within these buffers.

No Variances in Barton Springs Zone

Properties located within the Barton Springs Zone are not eligible for the exceptions or variances available for property owners in other areas. For example, properties may not be granted additional impervious cover beyond standard code limits without an amendment from City Council. An exception allows limited redevelopment to occur (less than 25% of the existing impervious cover) without complying with current impervious cover limits, if it adheres to water quality control regulations.

Erosion and Sedimentation Control for Construction

Temporary structures are required to address construction site runoff. Sites with disturbed soil and cleared vegetation allow higher volumes of runoff to collect loose sediment. Construction sites within the Barton Springs Zone are required to install and maintain additional controls and are required to develop a temporary erosion control plan.

Tree and Natural Area Protection

Site plans must include protections for certain trees (or provide for some kind of mitigation, if protection is not possible) during construction. Trees receive this protection based on their diameter four feet above the ground. The threshold is eight inches for commercial developments and nineteen inches for residential developments.

Save Our Springs Ordinance

The Save Our Springs Ordinance, adopted in 1992 through citizen initiative, introduced requirements for "non-degradation" and lowered impervious cover percentages (as described above). Non-degradation means that contaminant levels must not increase following site development. Most developments meet this requirement by providing controls that do not discharge runoff directly to waterways but instead infiltrate it into the soil. Approved systems include retention-irrigation ponds and vegetated filter strips.

Grandfathering

In 1987, the Texas Legislature vested property owner development rights. Chapter 245 of the Texas Local Government Code (as amended in 1999) requires regulatory agencies (like the City of Austin) to process development applications using only the land use regulations in effect at the time the application was filed. If a series of permits is required, then the applicable regulations are those in effect when the application for the first permit was filed. As defined by Chapter 245, original filing of development permit applications includes subdivision plats, site plans, public restrictive covenants, and utility service agreements.

The City of Austin has a standing "Chapter 245 Review Team." This group of City staff reviews site plan applications as they are filed with the City and then determines which projects are grandfathered under Chapter 245.

As a result of Chapter 245, many projects in Oak Hill are determined to have vested rights or entitlements to develop in ways that conflict with current land use regulations. Current impervious cover limitations and other site development standards adopted to protect water quality do not apply to these projects. Multiple projects have already been built under grandfathered rights, and more may be constructed in the future.

Smart Growth Initiative: The Drinking Water Protection Zone

As part of the City's mid-1990s attempt to reshape growth in Austin, the Smart Growth Initiative created the Desired Development Zone and the Drinking Water Protection Zone to reinforce the growth areas originally identified in the Austin Tomorrow Plan. Development, and especially intense activities that have the highest impact on water quality, would be directed

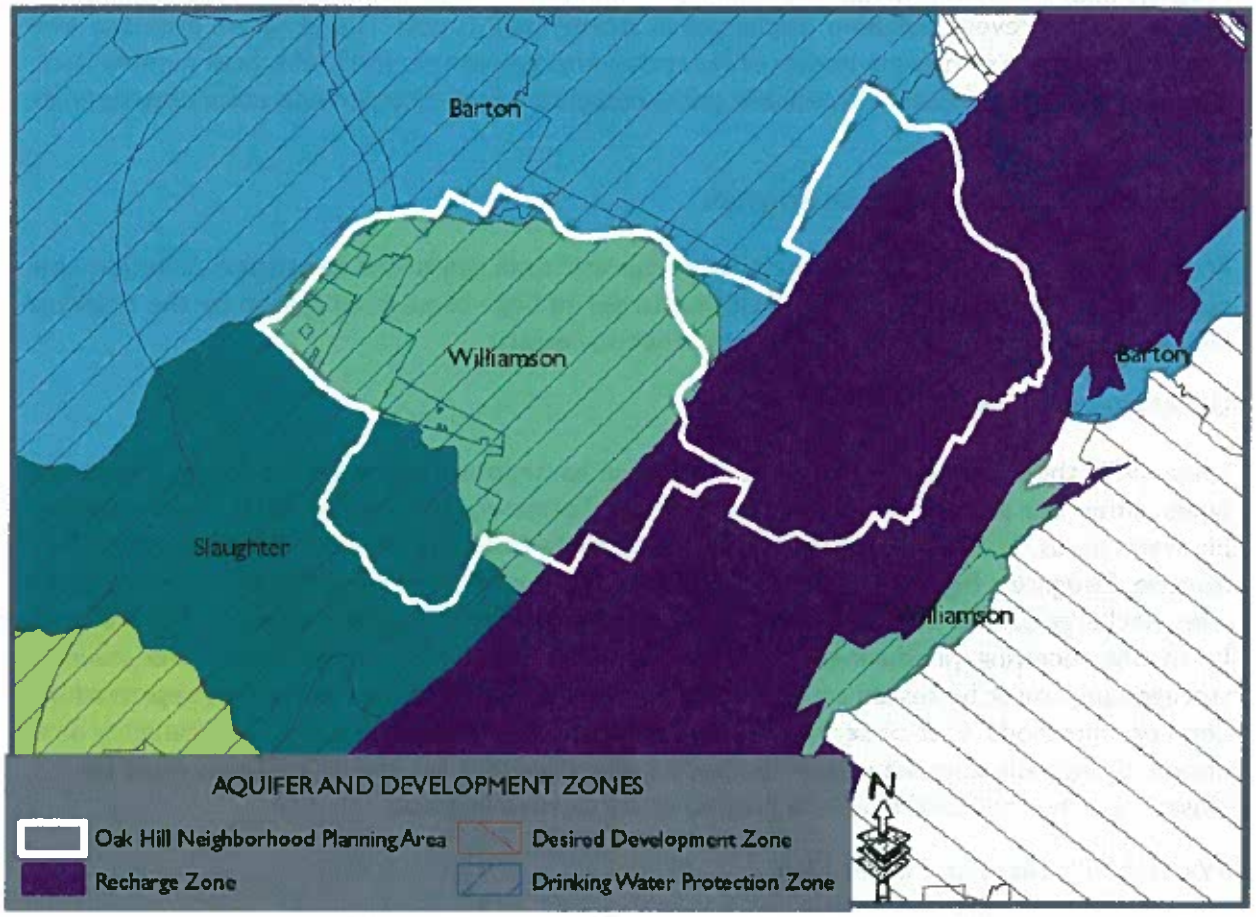

Figure 4-4: Desired Development Zone and Drinking Water Protection Zone in Oak Hill. All of the planning area is in the Drinking Water Protection Zone.

toward the desired zone and away from the environmentally sensitive features in the Drinking Water Protection Zone (Figure 4-4). The Drinking Water Protection Zone, which includes the Barton Springs Zone and all of the planning area, requires that development be implemented with great care and with the highest engineering and site development standards to protect drinking water.

WATERSHED PROTECTION AND DEVELOPMENT REVIEW

The City of Austin's Watershed Protection and Development Review Department (WPDRD) administers the Water Quality Protection Program, which maintains City compliance with multiple state and federal environmental requirements: "The goal . . . is to prevent, detect, evaluate and reduce water pollution in order to protect water quality and aquatic life in Austin's creeks, lakes and aquifers" (http://www.cityofaustin.org/watershed/waterq.htm).

Stormwater Discharge Permit Program

Program staff conduct routine site evaluations and permit specific businesses and industrial operations to prevent pollutant discharges in stormwater runoff. The program provides oversight for the state's implementation of federal discharge permits (NPDES). Staff identify illicit discharges and can require responsible party mitigation. Staff also provide enforcement when necessary.

Spills and Complaints Response Program

Program staff respond to emergency hazardous and toxic spills and investigate pollution complaints from citizens. Staff identify illicit discharges and can require mitigation by the responsible party. Staff also provide enforcement when necessary.

Underground Storage Tank Regulations

Since 1985, the City has regulated the storage of hazardous materials in underground storage tanks within city limits, the City's five-mile Extra-Territorial Jurisdiction (ETJ), and water supply watersheds. The water supply watersheds include Lake Austin, Lake Travis, Barton, Williamson, Slaughter, Big Bear, Little Bear, Onion, and the Northern and Southern Edwards Aquifer Recharge Zones. A Hazardous Materials Storage Permit must be obtained and maintained by anyone receiving, producing, or storing hazardous materials underground. Underground storage tanks must be tested or monitored for releases on a regular basis with approved leak detection methods. Out-of-service underground storage tanks may not be permanently abandoned, though the City may allow temporary abandonment for one year. Tanks must be closed by either removal from the ground or by closure in place.

Watershed Protection Master Plan

WPDRD completed Phase I of the Watershed Protection Master Plan, covering the twelve urban watersheds and five surrounding non-urban watersheds. The plan's process includes three steps: Assessment, Solution Development, and Implementation. The Master Plan inventoried existing watershed problems and gauged the impact of future urbanization in the 17

Phase I watersheds, which includes the planning area. The technical studies identified the location and severity of watershed problems and developed and prioritized conceptual solutions and cost estimates to fix each problem area. WPDRD has involved the public through public meetings and the creation of a Citizen's Advisory Group.

The planning area is primarily located in the aquifer-related Williamson and Barton Creek watersheds, with a small part of West Oak Hill located in the Edward's Aquifer contributing zone of the Slaughter Creek watershed.

The Master Plan study results for Williamson Creek in the planning area indicate that creek flooding problems are worse in an area along the main stem, from near the confluence with the Motorola Tributary continuing along McCarty Lane to just south of the intersection with U.S. Highway 290 W. The flood problem score for this reach of creek is "high" due to the flood threat to public safety caused primarily by the flooding of U.S. Highway 290 and Joe Tanner Lane.

TxDOT improvements to U.S. Highway 290 will alleviate much of the roadway flooding, and the City will upgrade Joe Tanner Lane in conjunction with the highway improvements. Roadway flooding has also been identified where Covered Bridge Road crosses a tributary of Williamson Creek near State Highway 71. WPDRD has plans to upgrade the culverts for this roadway. Preliminary design on this project are to begin in fall of 2007.

The Barton Creek portion of East Oak Hill has a "very low" creek flood score. Localized flooding (flooding occurring outside the 100-year floodplain) has been reported for the Scenic Brook and Bannockburn areas, both in the Williamson Creek watershed. WPDRD has completed a project to improve flooding conditions in the Scenic Brook area, which includes a detention pond and storm drain upgrades. A storm drain project for the Bannockburn area is currently under design, with construction to be funded by 2006 bond election funds.

Erosion threats for both Barton Creek and Williamson Creek in the Oak Hill area were rated "low" and "very low" by the Master Plan. The overall problem score for erosion includes components for both current and future erosion problems.

Overall water quality problem scores are based on current water quality conditions, future predicted changes in water quality and hydrology, and the watershed's contribution of flow and pollutants to the Edward's Aquifer, Barton Springs and Pool, and McKinney Falls.

The water quality of Williamson Creek has been impacted by urban development. The water quality score for the southern-most tributary of Williamson Creek, which runs through Dick Nichols Park, is "high," with the current water quality conditions rated "good." The primary water quality problem causes are depressed aquatic life support (55% of score), habitat quality (34%), and non-contact-recreation (12%).

The northern tributary of Williamson Creek (Motorola tributary) has an overall water quality score of "very high," with current water quality conditions rated "fair." The primary water quality problem causes are depressed aquatic life support (36% of score), non-contact recreation (31%), water chemistry (21%), and habitat quality (12%).

The Barton Creek portion of the Oak Hill planning area has an overall water quality score of "very high" and has a current water quality score of "very good."

Because development is underway in much of the watershed, future impacts to water quality and hydrology may be significant. Overall, future water quality problems are rated as "very high," which is reflected in the overall water quality score for this area.

Current Water Protection Projects

WPDRD has two structural stormwater control retrofits scheduled for the Williamson Creek portion of the planning area in the five-year Capital Improvement Projects plan (Fiscal Years 2008 – 2013). The first retrofit project is Lundelius McDaniel Tract, where WPDRD will construct a water quality control to treat runoff that enters a major recharge feature. This project is currently under design.

The second retrofit project is the Williamson Creek Water Management Area 8 (WMA-8) retrofit and restoration project. This effort has identified up to 13 existing stormwater ponds that could potentially be improved to better treat the stormwater from 100 to more than 500 acres to reduce pollutant loads, improve hydrology, and improve riparian conditions in Williamson Creek. This project area is located north of U.S. Highway 290, along the tributaries to Williamson Creek that are located near State Highway 71 and Old Bee Caves Road. The Williamson WMA-8 project is in the project planning phase.

Using bond election funds to acquire Water Quality Protection Lands also plays a significant role in implementing water quality solutions in the recharge zone. Since this program seeks cost-effective purchases of undeveloped land, it is likely that most of these purchases will be made in areas beyond the planning area.

Barton Springs Zone Advisory Group and Ordinance Initiative

The Barton Springs Zone Advisory Group was formed due to the concern among some in Oak Hill that the requirements of the redevelopment exception in the current code ("No Variances in Barton Springs Zone," above) has limited the redevelopment potential of older properties. Many of these properties have more impervious cover than is allowed by current code and no structural water quality controls.

Councilmember Leffingwell created the Advisory Group to develop "a consensus plan to optimize environmental protection while allowing responsible economic development." It was composed of diverse stakeholders, including the SOS Alliance, Save Barton Creek Association, Oak Hill Association of Neighborhoods, Barton Springs/Edwards Aquifer Conservation District, RECA, Chamber of Commerce, Hill Country Conservatory, Chair of the Environmental Board, consultants including licensed engineers, and citizens including land developers and property owners.

Approved by City Council on November 8, 2007, section 25-8-27 (Ordinance No. 20071108-121) allows redevelopment projects to retain (but not exceed) current levels of impervious cover, if certain water quality controls are installed. Properties with less than 40% impervious

cover must provide on-site water quality controls compliant with the SOS Ordinance. Properties with more than 40% impervious cover must (a) provide at least a sedimentation-sand filtration level of on-site water quality controls and (b) provide for purchase and permanent protection of off-site, undeveloped lands in the Barton Springs Zone to obtain an overall impervious cover level of 20%. The proposed ordinance establishes thresholds beyond which City Council approval is required.

REGIONAL WATER QUALITY INITIATIVES

CONSERVATION DISTRICTS

Both the Edwards and the Trinity aquifers have conservation districts that regulate water well construction and water usage. Over-pumping wells has led to decreased water tables in many areas, and the districts work to preserve groundwater and use it judiciously, especially during droughts.

TCEQ designated the Trinity Aquifer region as a "Priority Groundwater Management Area," where a critical water shortage is occurring or could occur within 25 years. This gives counties more regulatory power over wells; the designation has also helped create several conservation districts, such as the Trinity-Glen Rose Groundwater Conservation District and the Hays Conservation District. However, pumping regulations in the Trinity region are not standardized, and many water users and water conservationists are opposed to the district approach to groundwater management.

The Barton Springs/Edwards Aquifer Conservation District (BS/EACD) was created in 1987 and regulates well use in the watersheds that affect Austin-area surface and groundwater. The BS/EACD is discussed in more detail in Chapter 5.

THE REGIONAL WATER QUALITY PROTECTION PLAN FOR THE BARTON SPRINGS SEGMENT OF THE EDWARDS AQUIFER AND ITS CONTRIBUTING ZONE

This project was sponsored by a group of Edwards Aquifer-area municipalities, counties, and conservation districts, including the City of Austin, and was approved in June 2005. It was partially funded by the Texas Water Development Board and the Lower Colorado River Authority. The intent of the project was to achieve a regional consensus for how to address water quality concerns across the several jurisdictions in the Barton Springs Zone. The City of Austin worked with other key regional partners, such as the City of Dripping Springs and Hays County (among many others), to develop a plan, which included standards for the following:

- Maximum impervious cover percentages for (1) "Preferred Growth Areas" and (2) all other areas for the recharge and contributing zones;
- Open space conservation incentives and requirements, including a system to transfer development rights to Preferred Growth Areas;
- Minimum structural water quality controls;

- Minimum stream and CEF buffer setbacks;
- Land management;
- Public education and outreach; and
- Location, type, and maintenance of wastewater treatment systems.

For copy of the plan, go to http://www.waterqualityplan.org/.

In February 2006, City Council asked WPDRD staff to review the steps required to implement the Regional Water Quality Plan within the City and to assess the impact of doing so. Notably, the City of Austin's existing stormwater regulations were more closely aligned with the Regional Water Quality Plan goals and standards than most other participants. WPDRD is currently studying the effect of extending stream buffer protections to 32-acre drainage area thresholds, along with other recommendations of the plan. The City of Austin continues to meet and confer with other Regional Plan participants to determine the most effective ways to implement the plan.

CITY OF AUSTIN PLANS

In addition to all of the foregoing, the City has a number of plans, visions, and principles that shape its responses to growth, development, and environmental stewardship. The Austin Tomorrow Plan, introduced in Chapter 1, assigns growth area assessments to different parts of the City and its 1979 ETJ. These assessments (Priority Growth Areas I, II, and III and the non-preferred Areas IV and V) strove to balance environmental suitability against growth needs and existing infrastructure investments, including roads. It specifically called for the protection of the region's creeks, lakes, and aquifers. Thus, the Oak Hill area was assessed into Area IV (growth not preferred), recognizing both its environmental sensitivity and its existing highways and residents. Balancing these competing demands continues to be a thorny concern.

Less formally, the City has adopted the following vision: "We want to be the most livable city in the country." Pursuant to that vision, City Council's priorities include maintaining water quality, providing a healthy and safe city, and developing the economy in a sustainable manner.

City staff also have organization values that guide sustainable, collaborative work among departments. Among these values, the City is "Green"—"*We consider the impact on the environment in everything we do*"—and "Collaborative"—"*We work together and support one another as team members across departmental boundaries.*"

Chapter 1 listed the City's 18 Land Use Principles, which balance growth and property rights against equity and environmental protection. NPZD staff, including the Oak Hill team, seek to incorporate all of the above plans, policies, and organizational values, while balancing Oak Hill stakeholder goals and concerns. The recommendations listed in this chapter and in Chapter 6 reflect these efforts to balance multiple land use planning considerations.

RECENT CITY-WIDE VOTER ACTIONS

Proposition 2, a citizen initiative organized by the Save Our Springs Alliance, was not approved by voters in the May 2006 general election. Proposition 2, also known as the Save Our Springs Clean Water Charter Amendment, was designed to further protect the Barton Springs Zone from development.

Seven funding propositions were approved by Austin voters in November 2006. Proposition 2 funded projects designed to improve water quality in Oak Hill based on the Watershed Protection Master Plan. This funding is for the design and construction of facilities that conserve regional water quality by acquiring land for preservation in the Barton Springs contributing and recharge zones. The exact locations of those tracts has not been determined. The City will purchase land and conservation easements to create water quality management areas, which will be publicly accessible where appropriate.

Proposition 3 provides funding to expand trails along creeks, a major goal for many Oak Hill stakeholders. For additional information, please see Chapter 10.

ENVIRONMENTAL ORGANIZATIONS ACTIVE IN OAK HILL

The list below is a collection of the environmental advocacy organizations actively working on land development and aquifer issues involving Oak Hill at the time this document was published. Please contact these organizations directly for information.

Greater Edwards Aquifer Alliance, (210) 320-6294, http://www.aquiferalliance.org/.

Save Our Springs Alliance, (512) 477-2320, http://www.sosalliance.org/.

Save Barton Creek Association, (512) 480-0055, http://www.savebartoncreek.org/.

Hill Country Alliance, (512) 560-3135, http://www.hillcountryalliance.org/public/home.cfm.

Hill Country Conservancy, (512) 328-2481, http://www.hillcountryconservancy.org/.

SUMMARY OF STAKEHOLDER RECOMMENDATIONS

Some property owners are concerned about land use or zoning changes that would restrict the use of their property; they are concerned that their investments in land and existing businesses would be unnecessarily harmed. These stakeholders oppose any zoning overlays that would prohibit land uses on their property. However, other stakeholders and City staff support conditional overlays intended to restrict land uses that pose risks to water quality.

Some Oak Hill stakeholders support high density redevelopment in specified areas of Oak Hill. Many area residents look forward to participating in the design process for a transit-oriented Town Center-type development near the intersection of State Highway 71 and U.S. Highway 290. Others strongly support the redevelopment of older commercial structures and properties in Oak Hill. Several of these individuals have been active participants in Councilmember Leffingwell's Barton Springs Task Force meetings.

Although Neighborhood Planners and Watershed Protection Department staff strive to balance Oak Hill stakeholder goals, some of the recommendations listed at the beginning of the chapter are not supported by all Oak Hill stakeholders. A complex challenge for land use planning in Oak Hill is to both provide adequate neighborhood services for Oak Hill residents through new development and redevelopment while, at the same time, preserving the rural density and undeveloped land in Oak Hill, which is vital for preservation of the aquifer. For additional information on zoning recommendations designed to protect water quality, please refer to Chapter 6.